



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

Both in structure and position the antheridia are much like those of some species of *Blyttia*, and perhaps still more like those of *Calycularia radiculosa*.

The archegonial branches are very short, and bear but one receptacle which is relatively very large. The receptacle is very much like that of *Blyttia*, having a similar large involucre, within which is formed a second envelope, the perianth. The latter can be seen in the young receptacle as a shallow ring enclosing the group of archegonia. If one of these is fertilized, the perianth begins to grow very rapidly, and soon becomes a conspicuous tubular sheath enclosing the developing sporophyte.

The young embryo shows a conspicuous suspensor, and very closely resembles corresponding stages of the embryo of *Blyttia radiculosa*. As it develops, however, it is more like the embryo of *Mörkia* or *Calycularia*. This is shown in the development of a distinct foot, which is not so evident in *Blyttia*, and the capsule is less elongated than in *Blyttia*, resembling more nearly that of *Calycularia radiculosa*, with which it also agrees in the dehiscence of the capsule. In *P. malaccense*, the capsule opens by two completely separate valves, while in *Blyttia* (and it is said also in *P. phyllanthus*), there are four valves which remain united at the apex.

In the structure of the wall, and the markings of the spore membrane, *P. malaccense* much resembles a typical *Blyttia*.

It is evident that *Podomitrium* is much more like *Blyttia*, than like *Metzgeria*, and should be placed in the *Blyttiaceæ*, rather than *Aneuraecæ*.

THE FEEBLY INHIBITED. I. VIOLENT TEMPER AND ITS INHERITANCE

By C. B. Davenport

STATION FOR EXPERIMENTAL EVOLUTION, CARNEGIE INSTITUTION
OF WASHINGTON

Presented to the Academy, November 12, 1914

Recent studies have shown that the impulse to general mental development and the nervous 'strength' which successfully resists the stress of untoward conditions and emotional shocks have a clear hereditary basis. The hereditary factor behaves, indeed, in typical fashion. But it has often been pointed out by sociologists, who for the most part hold differences in 'conditions of life' responsible for the differences between men, that there is no evidence that the elements of moral or social behavior have a hereditary basis, and while there have not been

wanting those who have insisted that 'criminality is hereditary' yet no one has successfully determined the method of such inheritance. It appears, indeed, improbable that so complex a thing as criminality should prove to have a single hereditary factor. An attempt has been made to study the hereditary behavior of some of the elements of moral action—to analyze the family history of persons who have marked emotional traits.

Opportunities for such study have been afforded by 165 family histories of wayward girls in state institutions gained by trained field workers who visited the homes of the patients and got as full an account as possible of the behavior of all of the close relatives. The data were gathered without prejudice; indeed, it was impossible for the 'field worker' to know what laws of inheritance the histories might yield. Also, many other sources of information at the Eugenics Record Office have been drawn upon for additional data as to the inheritance of special traits.

Violent and more or less periodic outbursts of temper occur in families which are characterized by prevalence of epileptic attacks, also in those exhibiting cases of mania, also in others in which 'hysterical' attacks are common. The special form of the attacks differs somewhat in these classes of families, but the method of inheritance of the tendency is the same in all, and it seems probable that in each class the simple symptoms of the emotional outburst are modified by the differences in these three classes of the nervous condition.

The method of inheritance is indicated at once by the fact that, in the 66 family histories studied, the tendency to outbursts does not, typically, skip a generation. In one history it is traced through 5 generations; in a large proportion of the histories it is traced through 3 consecutive generations. The few cases in which neither parent of an affected individual is reported to have the tendency to outbursts are explained by obvious insufficiency in the record.

The fact that the tendency to outbursts of temper does not skip a generation indicates that it is a positive or dominant trait. That segregation of this tendency occurs is shown by the ratio of affected offspring in any fraternity to the total number of offspring whose emotional history is fully described. From the mating of an uncontrolled and a normal person expectation is that 50 percent of the children will be uncontrolled. A summation of all such children gives a total of 106 affected among 219 sufficiently described, or close to the 50 percent expected on the hypothesis that the tendency to outbursts of temper is a simple, positive trait.

The detailed investigation will appear in the *Journal of Nervous and Mental Diseases* and in the *Bulletin of the Eugenics Record Office*.